

**AMENDMENTS TO THE CLAIMS**

1. (Previously presented) Process for preparing  $\text{SO}_2\text{F}_2$ , which comprises introducing in a gas-phase reaction step  $\text{SO}_2\text{F}_2$  precursors comprising at least  $\text{SO}_2\text{ClF}$  and hydrogen fluoride and the reaction is carried out a temperature of at least  $150^\circ\text{C}$  **and in the presence of a catalyst comprising a microporous material.**
2. (Currently amended) The process ~~Process~~ according to claim 1, in which the level of  $\text{SO}_2\text{ClF}$  is at least 80 mol% of the sum of  $\text{SO}_2\text{F}_2$  precursors introduced into the reaction step.
3. (Currently amended) The process ~~Process~~ according to claim 2, in which the level of  $\text{SO}_2\text{ClF}$  is at least 95 mol% of the sum of  $\text{SO}_2\text{F}_2$  precursors introduced into the reaction step.
4. (Currently amended) The process ~~Process~~ according to claim 1, in which the reaction is carried out in the presence of a catalyst based on active carbon.
5. (Currently amended) The process ~~Process~~ according to claim 1, in which the reaction is carried out at a temperature of 150 to  $300^\circ\text{C}$  and at a pressure of 1 to 10 bar.
6. (Currently amended) The process ~~Process~~ according to claim 1, in which the reaction is carried out in the substantial absence of chlorine.
7. (Currently amended) The process ~~Process~~ according to claim 1, in which the  $\text{SO}_2\text{F}_2$  precursors and the hydrogen fluoride introduced in the gas-phase step are essentially devoid of hydrogen chloride.

8. (Previously presented) Integrated process for preparing  $\text{SO}_2\text{F}_2$  and optionally  $\text{SO}_2\text{ClF}$ , comprising
  - (a) a first step in which hydrogen fluoride is reacted with  $\text{SO}_2$  and chlorine and/or with  $\text{SO}_2\text{Cl}_2$  to give  $\text{SO}_2\text{ClF}$ ;
  - (b) a second step in which at least some of the  $\text{SO}_2\text{ClF}$  obtained in step (a) is reacted with hydrogen fluoride by the process of claim 1.
9. (Currently amended) The process ~~Process~~ according to claim 8, in which step (a) is carried out in the gas phase in the presence of a catalyst based on active carbon at a temperature less than or equal to  $150^\circ\text{C}$ .
10. (Currently amended) The process ~~Process~~ according to claim 8, in which step (a) is carried out at a temperature greater than or equal to  $100^\circ\text{C}$  and not exceeding  $120^\circ\text{C}$ .
11. (Currently amended) The process ~~Process~~ according to claim 8, in which, prior to step (b), the reaction mixture obtained from step (a) is subjected to a separating operation intended to concentrate the  $\text{SO}_2\text{ClF}$  and to reduce its  $\text{HCl}$  content.
12. (Currently amended) The process ~~Process~~ according to claim 11, in which the separation is carried out so as to recover, on the one hand, a fraction comprising  $\text{SO}_2\text{ClF}$ , which is intended for introduction into step (b), and, on the other hand, at least one fraction consisting essentially of  $\text{SO}_2\text{ClF}$ .
13. (Currently amended) The process ~~Process~~ according to claim 3, in which the reaction is carried out in the presence of a catalyst based on active carbon.

14. (Currently amended) The process ~~Process~~ according to claim 4, in which the reaction is carried out at a temperature of 150 to 300°C and at a pressure of 1 to 10 bar.
15. (Currently amended) The process ~~Process~~ according to claim 14, in which the reaction is carried out in the substantial absence of chlorine.
16. (Currently amended) The process ~~Process~~ according to claim 15, in which the SO<sub>2</sub>F<sub>2</sub> precursors and the hydrogen fluoride introduced in the gas-phase step are essentially devoid of hydrogen chloride.
17. (Currently amended) The process ~~Process~~ according to claim 9, in which step (a) is carried out at a temperature greater than or equal to 100°C and not exceeding 120°C.
18. (Currently amended) The process ~~Process~~ according to claim 17, in which, prior to step (b), the reaction mixture obtained from step (a) is subjected to a separating operation intended to concentrate the SO<sub>2</sub>ClF and to reduce its HCl content.
19. (Currently amended) The process ~~Process~~ according to claim 18, in which the separation is carried out so as to recover, on the one hand, a fraction comprising SO<sub>2</sub>ClF, which is intended for introduction into step (b), and, on the other hand, at least one fraction consisting essentially of SO<sub>2</sub>ClF.
20. (Currently amended) The process ~~Process~~ according to claim 3, in which the reaction is carried out at a temperature of 150 to 300°C and at a pressure of 1 to 10 bar.

21. (New) The process according to claim 1, wherein the catalyst comprising a microporous active carbon material which has a BET specific surface area greater than or equal to 700  $\text{m}^2/\text{g}$  and less than 3,000  $\text{m}^2/\text{g}$ .